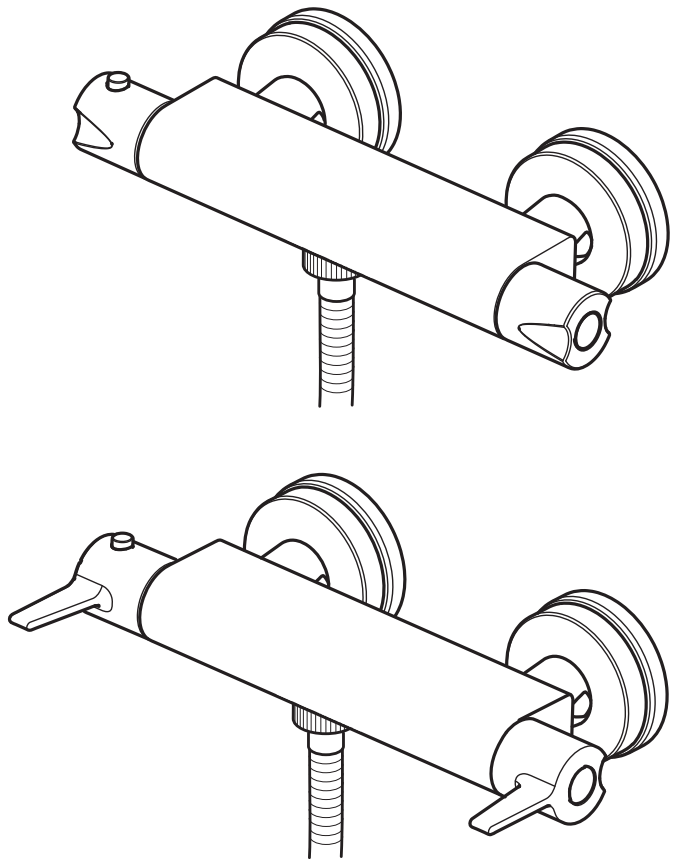


BRISTAN

Installation Instructions and User Guide

Artisan Thermostatic
Surface Mounted Bar
Shower Valves



Models covered: AR2 SHXMTFF2 C,
AR2 SHXSMFF2 C, ARECO SHXSMFF2 C,
AR2 SHXVOFF2 C & AR2 SHXLSMFF2 C

Please keep this booklet for future
reference.

Installer, when you have read these
instructions please ensure you leave them
with the user.



Contents

Thank you for choosing Bristan, the UK's leading showers and taps expert.

Your Bristan shower valve is a thermostatic mixer incorporating a wax capsule thermostat to ensure constant shower temperatures. These instructions are for your guidance to a safe and successful installation and should be left with the user. All products manufactured and supplied by Bristan are safe providing they are installed correctly and receive regular maintenance in accordance with these instructions.

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Important Safety Information

- Please read these instructions thoroughly and retain for future use.
- All products manufactured and supplied by Bristan are safe provided they are installed, used correctly and receive regular maintenance in accordance with these instructions.
- **If you are in any doubt about your ability to install this shower valve safely you must employ the services of an experienced qualified plumber.**
- These fittings need to be installed in accordance with, and meet the requirements of the Water Supply (Water Fittings) Regulations 1999 and Scottish Byelaws 2004.
-  **Warning:** Do not operate the shower valve if you suspect it is frozen. Do not site the shower valve where it might be subjected to freezing conditions.
- Do not crush or kink the shower hose, this could damage the hose and cause leaks.
- Remove all packaging and check the contents for damage before starting installation.
- Before starting any installation please consider the following: before drilling into walls, check that there are no hidden electrical wires, cables or water supply pipes. This can be checked with the aid of an electronic detector.
- If power tools are used do not forget to:
 - Wear eye protection
 - Unplug equipment after use
- Fitting isolating valves to the inlet feeds is required for ease of maintenance.
-  **Warning:** Before installing the new shower valve it is essential that you thoroughly flush through the pipework in order to remove any remaining swarf, solder, etc. Failure to carry out this procedure could cause problems or damage to the workings of the shower valve.
- This shower valve **must** not be modified in any way as this will invalidate the guarantee.

General Information

Operating pressure range: Minimum 0.1 bar, Maximum 5.0 bar.

Maximum static pressure: 10.0 bar.

This product has been tested to the TMV2 scheme which complies with the BS EN 1287:1999 (LP) and BS 1111:1999 (HP) thermostatic mixing valve standards and satisfies the requirements of the water supply (water fittings) regulations 1999 and current bylaws.

BS 6700 recommends the temperature of stored water should never exceed 65°C. A stored water temperature of 60°C is considered sufficient to meet all normal requirements and will minimise the build up of lime scale in hard water areas (see Map of Hard Water Regions in the UK on page 26).

If the fitting is installed at low pressure (tank fed), then the minimum distance from the highest installed position of the showerhead to the underside of the cold tank should be at least 2 metres to ensure adequate performance.

Note: Nominally equal (balanced) inlet supply pressures are recommended for optimum performance with mixer showers.

These shower valves should be installed in compliance with the Water Regulations.

If in doubt, contact a registered plumber or your Local Water Authority or the Secretary of The Institute of Plumbing, address as follows;-

The Institute of Plumbing,
64 Station Lane,
Hornchurch,
Essex, RM12 6NB

Tel:01708 472791

Recommended Usage			
Domestic	✓	Heavy Commercial	✓
Light Commercial	✓	Health Care	✗

Product features

1. Temperature Control

Adjustable temperature control.

Turn the control clockwise to increase the temperature.

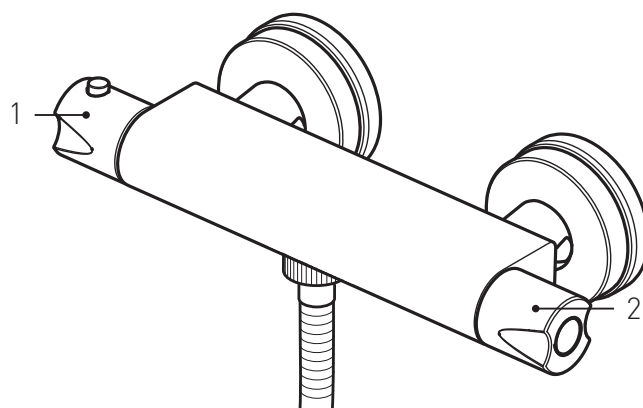
Turn the control anti-clockwise to decrease the temperature.

2. Flow Control

Controls the amount or flow of water from the showerhead.

Turn the control clockwise to turn on and increase the flow.

Turn anti-clockwise to reduce the flow and turn off.



Specifications

Specifications

Inlet connections: 15mm compression with 150mm between centres.

Outlet connection: G1/2"

Operating pressure range: Min. 0.1 bar - Max. 5.0 bar - Maximum recommended imbalance between hot and cold supply should not exceed a ratio of 5:1.

Note: ARECO SHXSMFF C Min. 1.0 bar - Max. 5.0 bar

Maximum static pressure: 10 Bar

Maximum outlet temp: Factory pre-set to 38°C

(can be re-set to suit site conditions). If the temperature is re-set to suit different site conditions the valve will work adequately however the TMV2 scheme will not apply.

Supply requirements:

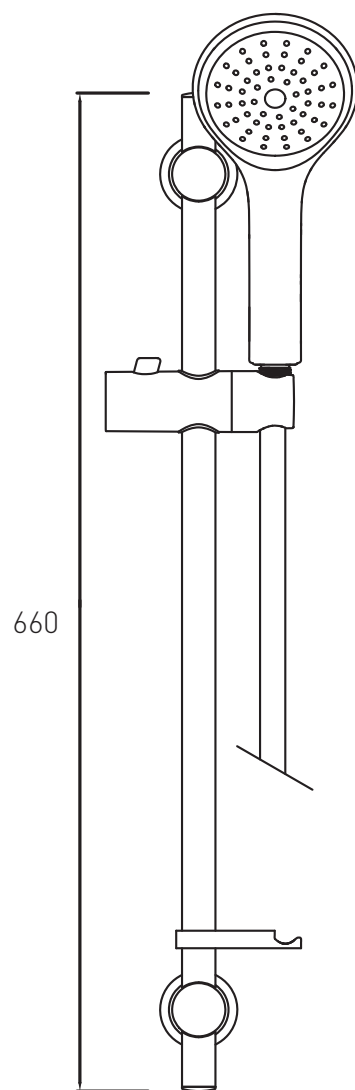
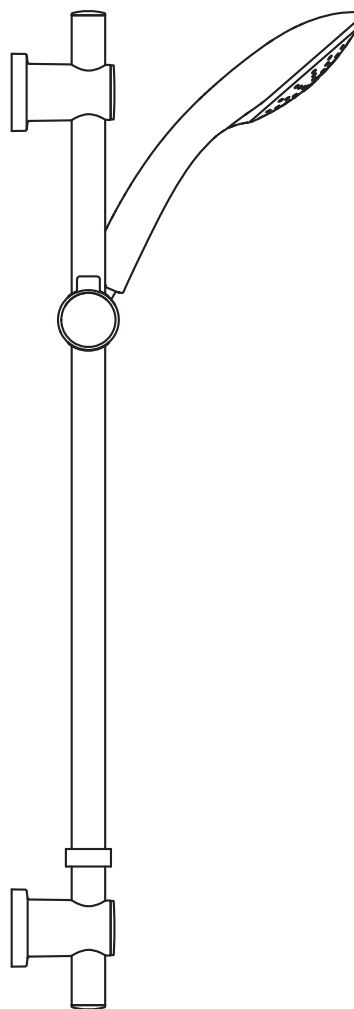
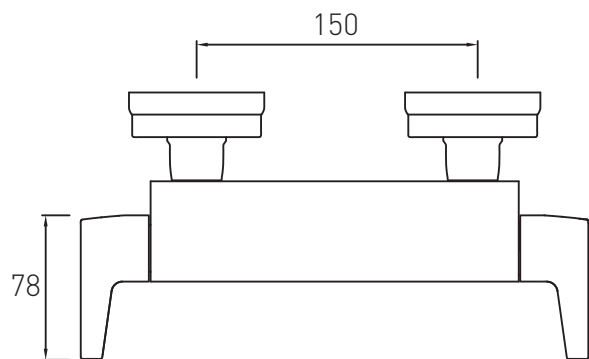
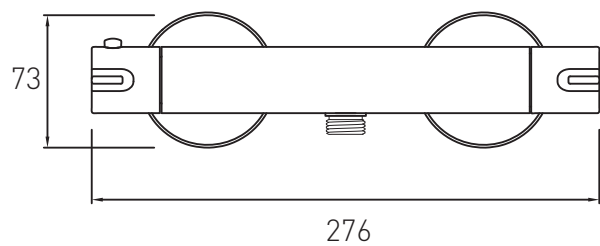
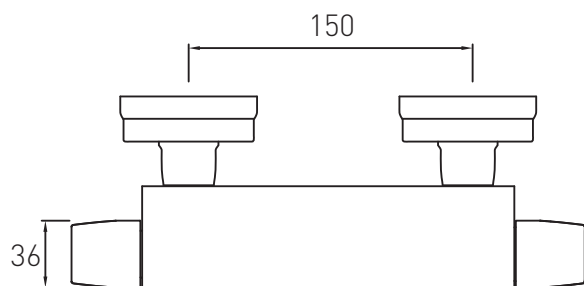
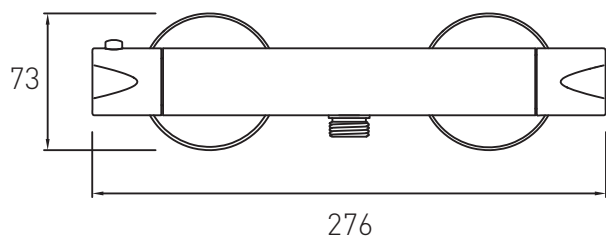
Minimum cold water supply temperature: 5°C.

Maximum cold water supply temperature: 25°C.

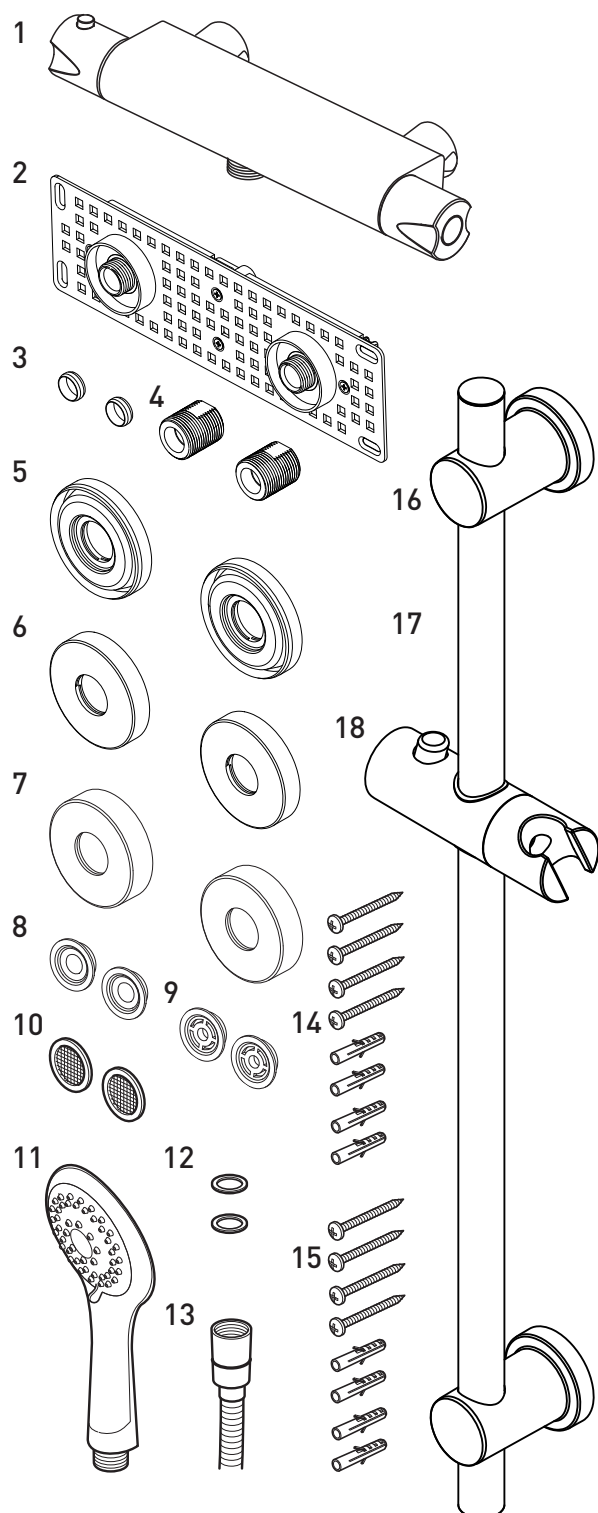
Maximum hot water supply temperature: 80°C.

(a maximum hot water supply temperature of 60 - 65°C is recommended for ablutionary purposes)

Dimensions (mm's)

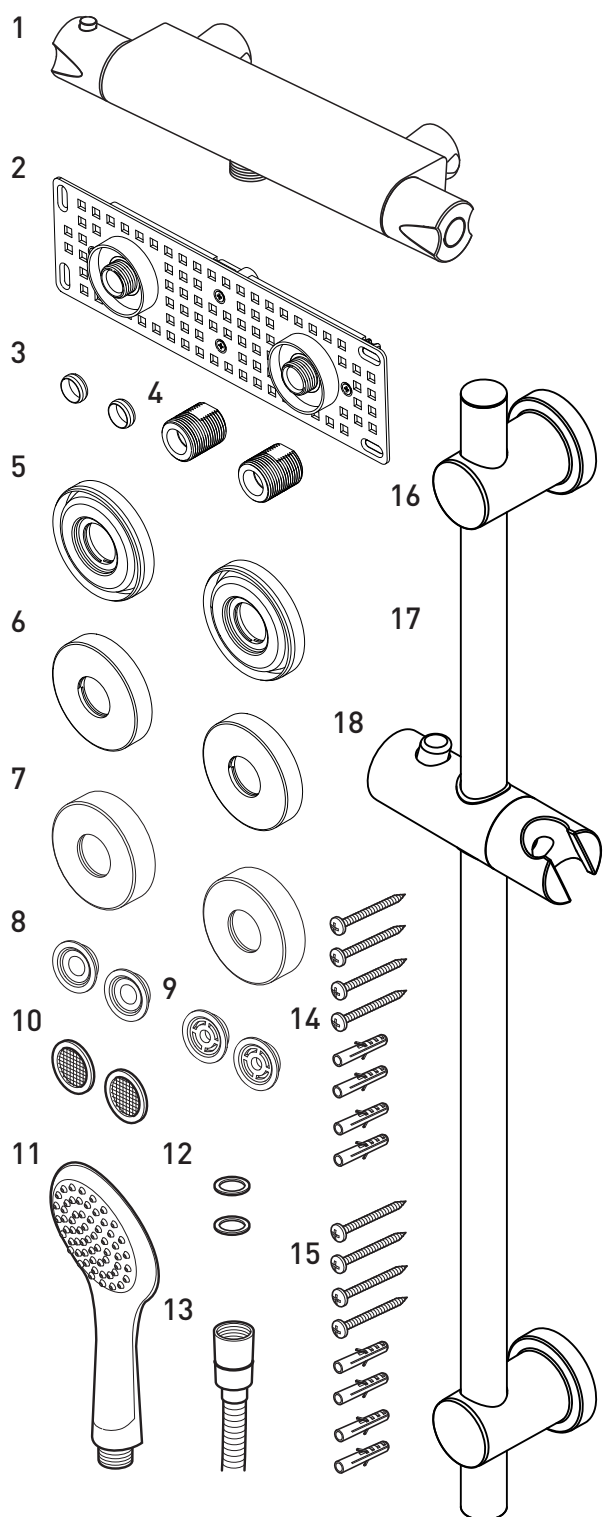


Pack Contents - AR2 SHXMTFF2 C



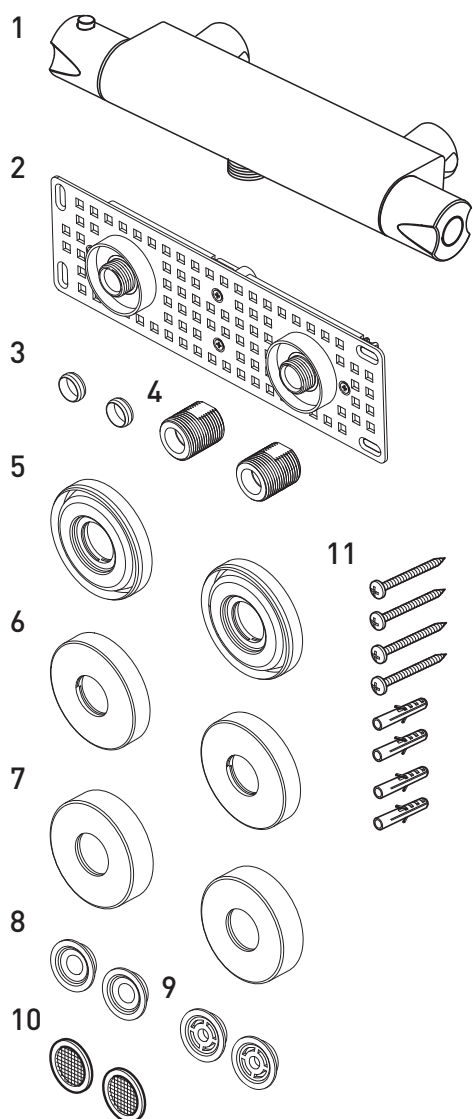
- 1 Shower valve x1
- 2 Wall mount fixing plate x1
- 3 Olives x2
- 4 Fixing bridges x2
- 5 Rear covers x2
- 6 Front covers x2
- 7 Retro-fit covers x2
- 8 Plastic Inserts x2 (Pre-fitted)
- 9 Flow Regulators x2 (Loose in box)
- 10 Filter washers x2
- 11 Multi function handset x1
- 12 Sealing washers x2
- 13 Shower hose x1
- 14 Wall plate fixings x4/4
- 15 Riser rail fixings x4/4
- 16 Wall brackets x2
- 17 Riser rail x1
- 18 Slider x1

Pack Contents - AR2 / ARECO SHXSMFF2 C



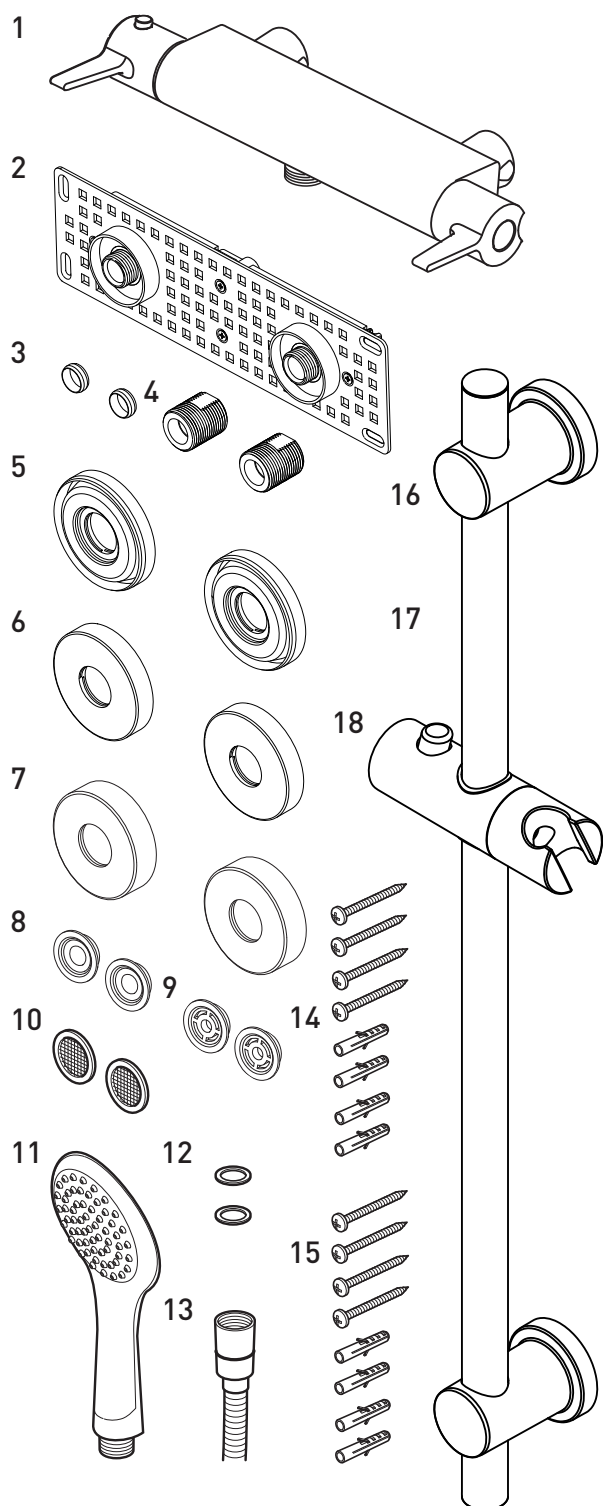
- 1 Shower valve x1
- 2 Wall mount fixing plate x1
- 3 Olives x2
- 4 Fixing bridges x2
- 5 Rear covers x2
- 6 Front covers x2
- 7 Retro-fit covers x2
- 8 Plastic Inserts x2 (Pre-fitted AR2)
- 9 Flow Regulators x2 (Loose in box ECO)
- 10 Filter washers x2
- 11 Single function handset x1
- 12 Sealing washers x2
- 13 Shower hose x1
- 14 Wall plate fixings x4/4
- 15 Riser rail fixings x4/4
- 16 Wall brackets x2
- 17 Riser rail x1
- 18 Slider x1

Pack Contents - AR2 SHXV0FF2 C



- 1 Shower valve x1
- 2 Wall mount fixing plate x1
- 3 Olives x2
- 4 Fixing bridges x2
- 5 Rear covers x2
- 6 Front covers x2
- 7 Retro-fit covers x2
- 8 Plastic Inserts x2 (Pre-fitted)
- 9 Flow regulators x2 (Loose in box)
- 10 Filter washers x2
- 11 Wall plate fixings x4/4

Pack Contents - AR2 SHXLSMFF2 C



- 1 Shower valve x1
- 2 Wall mount fixing plate x1
- 3 Olives x2
- 4 Fixing bridges x2
- 5 Rear covers x2
- 6 Front covers x2
- 7 Retro-fit covers x2
- 8 Plastic Inserts x2 (Pre-fitted)
- 9 Flow Regulators x2 (Loose in box)
- 10 Filter washers x2
- 11 Single function handset x1
- 12 Sealing washers x2
- 13 Shower hose x1
- 14 Wall plate fixings x4/4
- 15 Riser rail fixings x4/4
- 16 Wall brackets x2
- 17 Riser rail x1
- 18 Slider x1

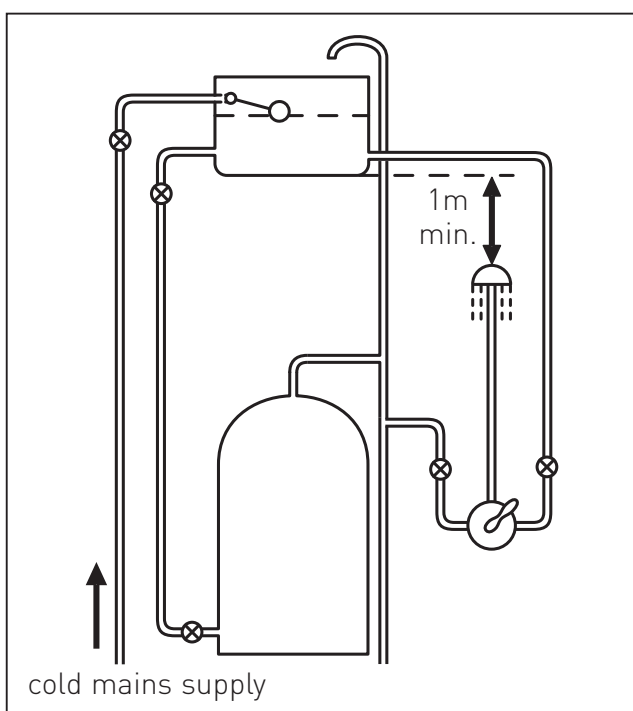
Installation Requirements

This shower valve must be installed in compliance with current water regulations. If you have any doubts about the water regulation requirements contact your local water services provider or use the services of a professional plumber.

This shower valve is suitable for use with the following water supply systems:

- **Gravity Fed Hot and Cold**
(pressure balanced)
- **Gravity Fed Hot and Mains Cold**
(differential pressure - see Specification section on page 6)
- **Instantaneous water heater**
(combination boiler)
- **Unvented System**
- **Pumped System**

Gravity Fed Hot and Cold



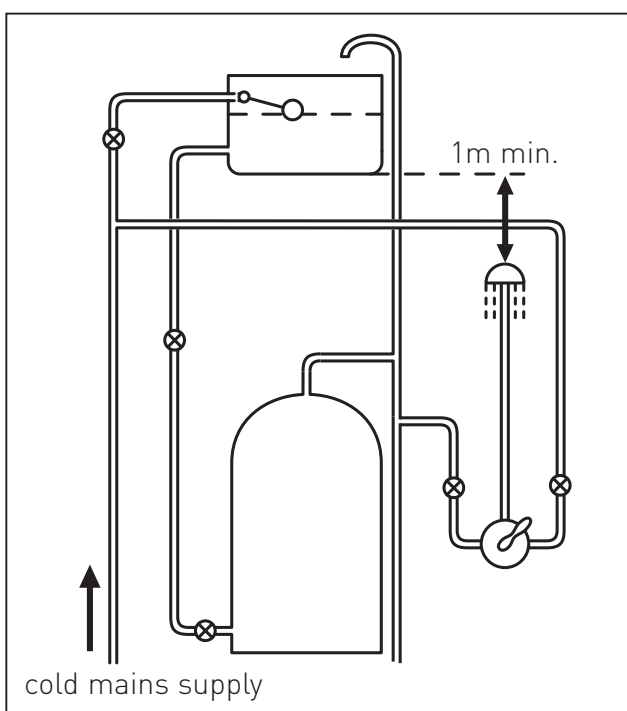
⚠ Important: If you install this shower valve with a gravity fed system, there must be a minimum head (vertical distance) from the underside of the cold water storage tank to the showerhead position of at least 1 metres.

Note: Pumped system (with Essex flange) If you install this shower valve to a pumped gravity fed system where the minimum head (vertical distance) from the underside of the cold water storage tank to the top of the hot water cylinder is less than 1 metre we recommend an Essex flange is used as shown.

Flushing Pipe-work

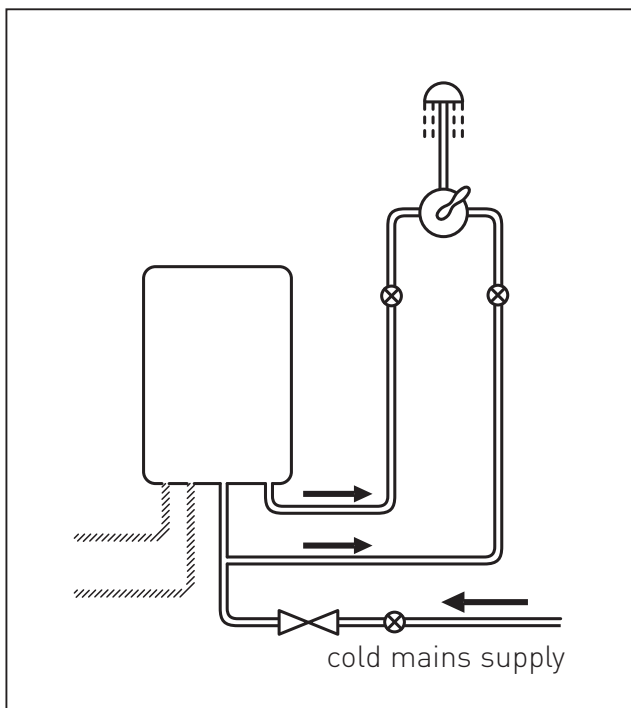
⚠ Important: Before connecting the shower valve (see 'Installation' on pages 16-19), supply pipe-work **must** be flushed to clear debris before connecting the shower valve. Debris will reduce the performance and life of the shower.

Gravity Fed Hot and Mains Cold

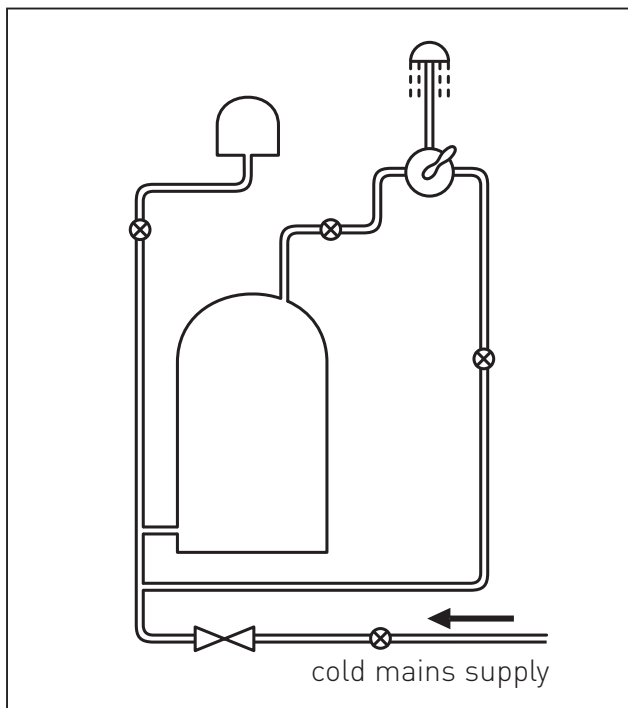


Installation Requirements

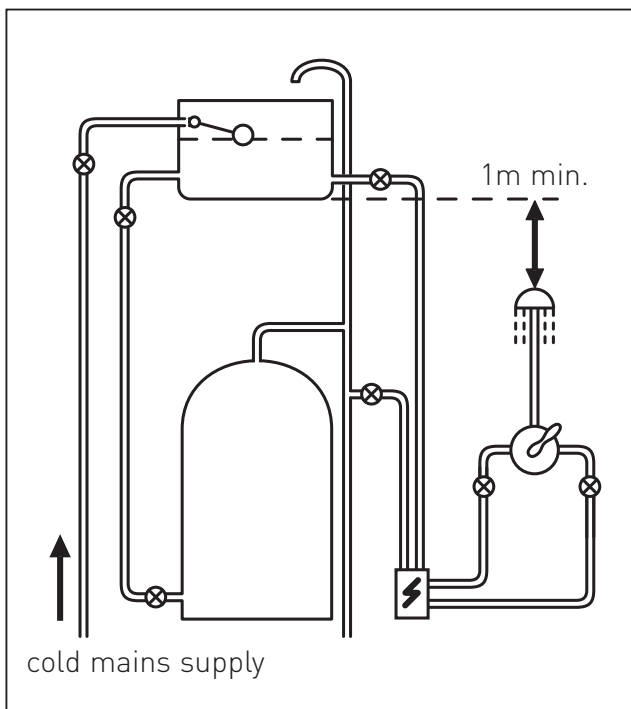
Instantaneous Water Heater



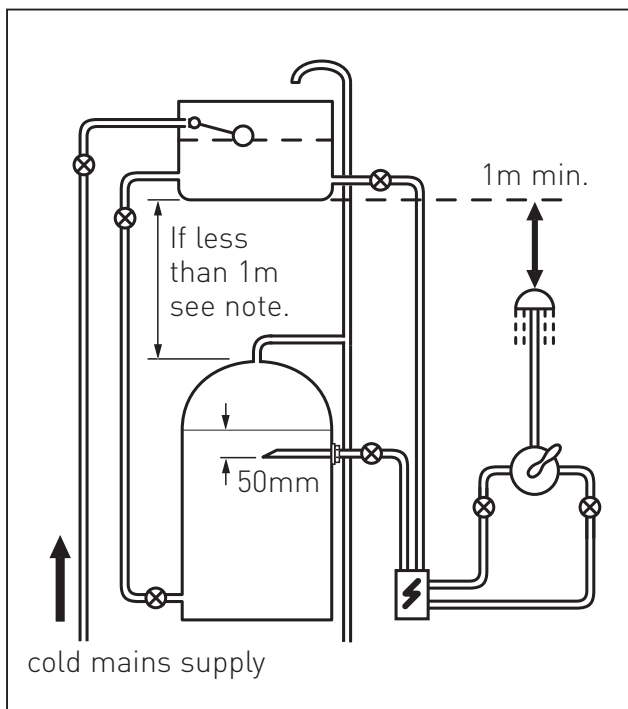
Unvented System



Pumped System



Pumped System (with Essex flange)



Key: Isolating Valve Reducing Valve Shower Valve Pump Essex Flange

Installation Requirements

This fitting needs to be installed in accordance with the following Installation Requirements and Notes (IRN) to ensure they meet the requirements of the Water Supply (Water Fittings) Regulations 1999 and the Scottish Byelaws 2004.

IRN R001: See text of entry for Installation Requirements or Notes.

IRN R040 - Schedule 2-15 (1): The fitting shall be installed so that its outlet discharges above the spill-over level of any fixed appliance as indicated below:-

For backflow protection in domestic or installations up to, and including, Fluid Category 3.

If the fitting cannot be installed as indicated in the table opposite it shall be installed as either **a** or **b** below:

a: with an approved double check valve assembly or some other no less effective backflow prevention device immediately upstream of the inlet.

b: so that it draws water by gravity only from a cistern, or cylinder having a permanently open vent pipe, and the distributing pipe supplies no other fittings (other than a draining tap) at a lower level.

For backflow protection in premises or installations up to, and including Fluid Category 5.

The vertical distance of the outlet above the spill-over level shall be not less than 20mm or twice the diameter of the inlet pipe to the fitting, which ever is the greater. If the fitting cannot be installed as indicated it shall be installed with a backflow prevention arrangement suitable for the Fluid Category.

Size of tap or combination fitting	Vertical distance of outlet above spill-over level
1. Not exceeding ½"	20mm
2. Exceeding ½" but not exceeding ¾"	25mm
3. Exceeding ¾"	70mm

Installation Requirements

Flow Regulators

This shower valve is supplied with 2 x 7 litre per minute flow regulators loose in the box (pre-fitted to ARECO SHXSMFF2 C) which must be fitted in each water inlet when installed in conjunction with an instantaneous water heater/combination boiler.

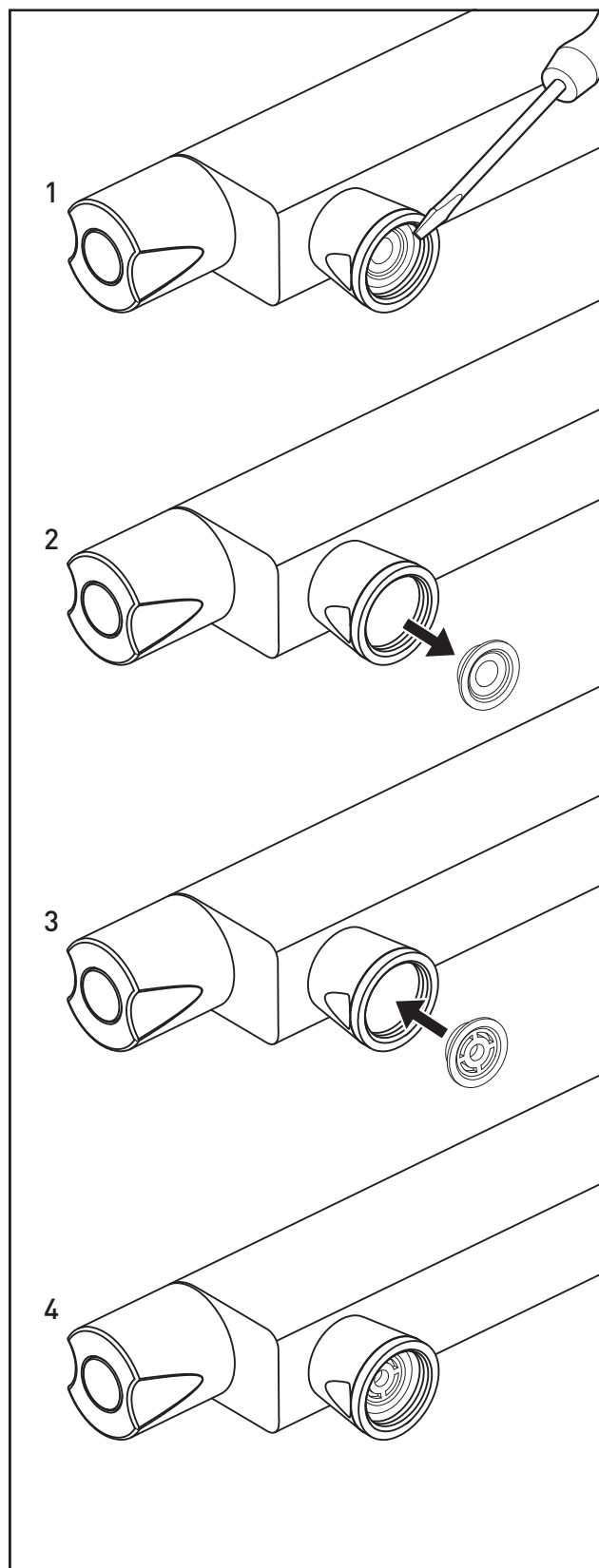
Fitting both flow regulators and turning the water heater/combination boiler to its hottest setting, will ensure a sufficiently hot water supply to the shower valve during winter months (in the UK), when the mains cold water supply is at its coldest.

In the event that this shower valve is not installed with an instantaneous water heater/combination boiler, the flow regulators may be removed. Please follow the steps detailed to remove the flow regulators.

Using a thin flat bladed screwdriver or similar tool, carefully prise the inserts out of both inlets (**1** & **2**).

With the inserts removed from the inlets, the flow regulators must be fitted as shown, with the small diameter first (**3** & **4**).

Note: The ARECO SHXSMFF2 C is supplied with the 2 x 7 litre per minute flow regulators pre-fitted. If required they can be removed and the inserts supplied loose in the box fitted.



Installation - New First Fix

If this is a new installation follow First & Second fix installation.

If replacing an existing shower valve proceed to Retro-fit installation on page 19.

Before Installation

Flush through the pipework to ensure removal of debris. Turn off the mains water supply and close any isolating valves.

1. Position fixing backplate

⚠ Identify the required position of the shower valve, where the wall mount fixing plate will be installed.

Mark a 230mm x 50mm rectangle on the wall surface.

Warning: Please check for any hidden electrical wires, cables or water supply pipes before drilling / cutting into the wall.

2. Prepare water supply pipes

The centres of the hot and cold water supply pipes should be 150mm apart, with a sufficient amount of pipework protruding through the wall.

3. Fit wall mount fixing plate

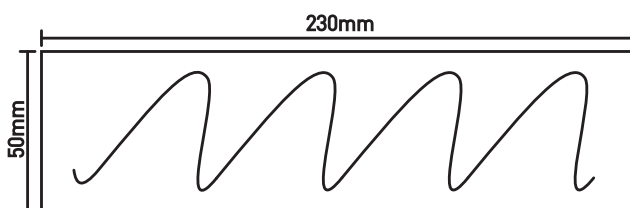
The wall mount fixing plate has two methods of fixing.

a) Tighten fixing lugs

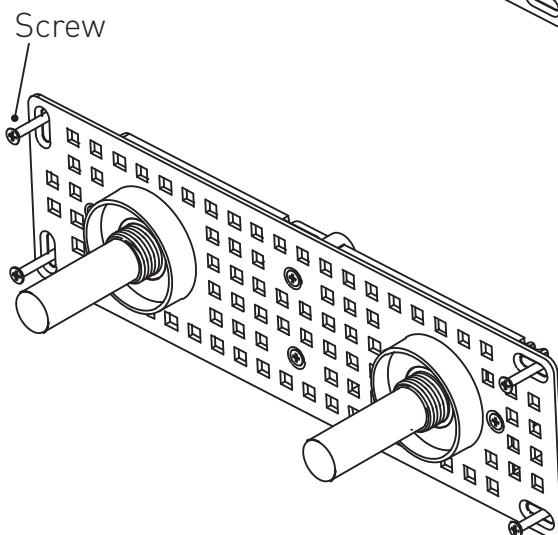
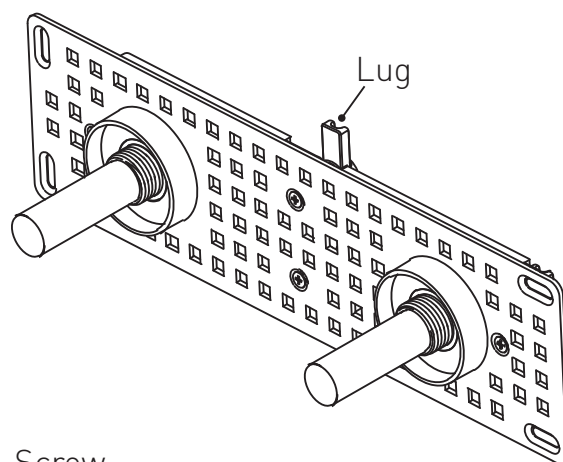
Tighten the two screws in the middle of the fixing plate and the two either side of the inlets. Tightening these screws will secure the lugs against the inside of the wall surface.

b) Screw fixing plate to the wall

Using suitable screws for the wall type secure the wall mount fixing plate to the wall. There is a hole in each corner of the fixing plate for the fixings.



Important: Water supplies to the mixer must be with hot on the left and cold on the right when viewed from the front.



Installation - New First Fix

4. Cut supply pipework

Once the wall mount fixing plate has been secured to the wall the water supply pipework will need to be trimmed back with the use of a pipe cutter.

Note: The supply pipework **must** protrude 10mm +/- 2mm past the brass insert.

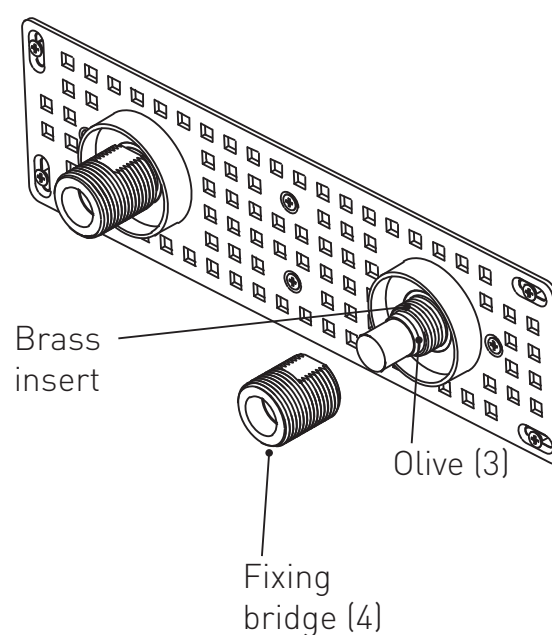
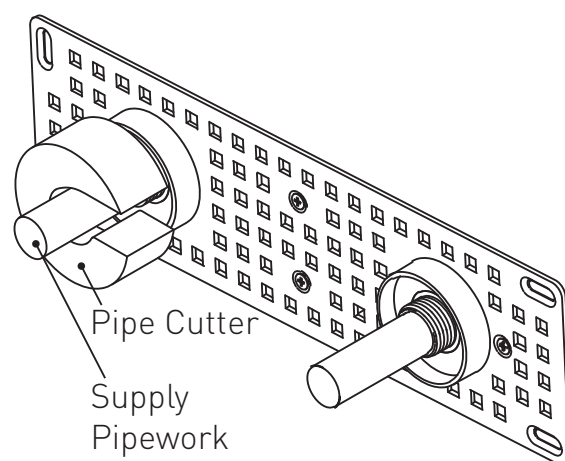
5. Attach olives and fixing bridges

Place olives (3) onto the protruding supply pipework.

Important: The pipework **must** protrude 10mm +/- 2mm past the brass inserts.

Screw the fixing bridges (4) onto the threaded brass inserts using a suitable spanner.

Note: If required, any decorating should be complete now before starting the second fix.



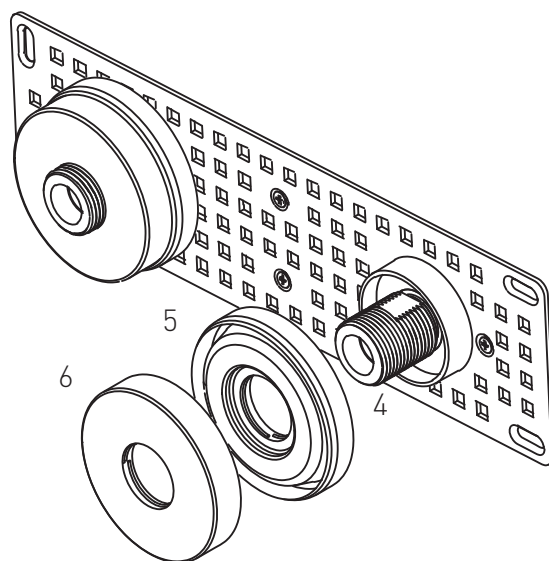
Installation - New Second Fix

1. Fit covers

Screw the covers (5 & 6) onto the fixing bridges (4).

Note: The rear covers (5) screw onto the fixing bridges (4) flush upto the finished wall surface.

The front covers (6) are adjustable up and down the fixing bridges (4) to allow for different wall / tile thicknesses.

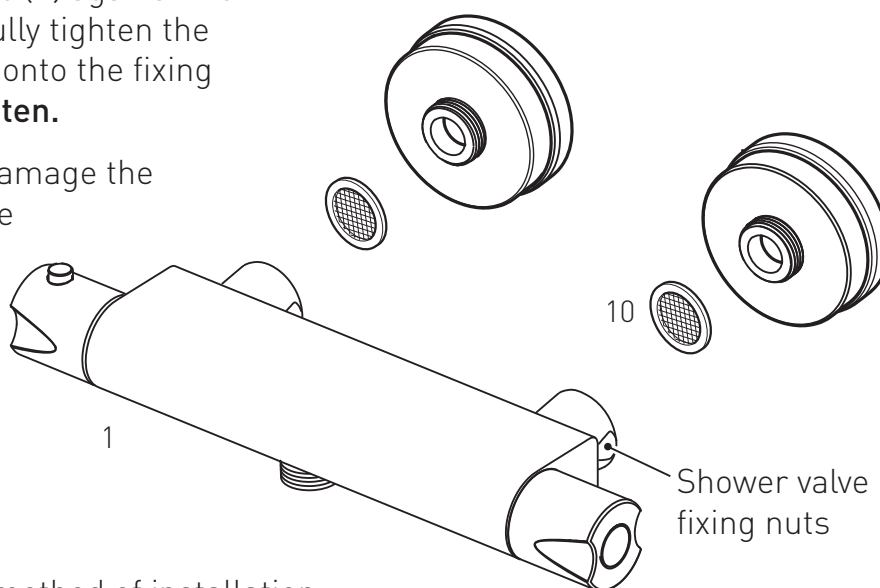


2. Attach shower valve

Place the filter washers (10) into the shower valve fixing nuts.

Position the shower valve (1) against the fixing bridges and carefully tighten the shower valve fixing nuts onto the fixing bridges. **Do not overtighten.**

Note: Take care not to damage the finish of the shower valve fixing nuts. Protect the chromium plated surfaces with a cloth.



If you have enjoyed this method of installation, the first fix wall fixings are available to purchase separately, please see www.bristan.com for more details. Bristan product code: WMNT11 C

Installation - Retro-fit

If replacing an exsisting shower valve the wall mount fixing plate is not required.

1. Fit Retro-fit covers

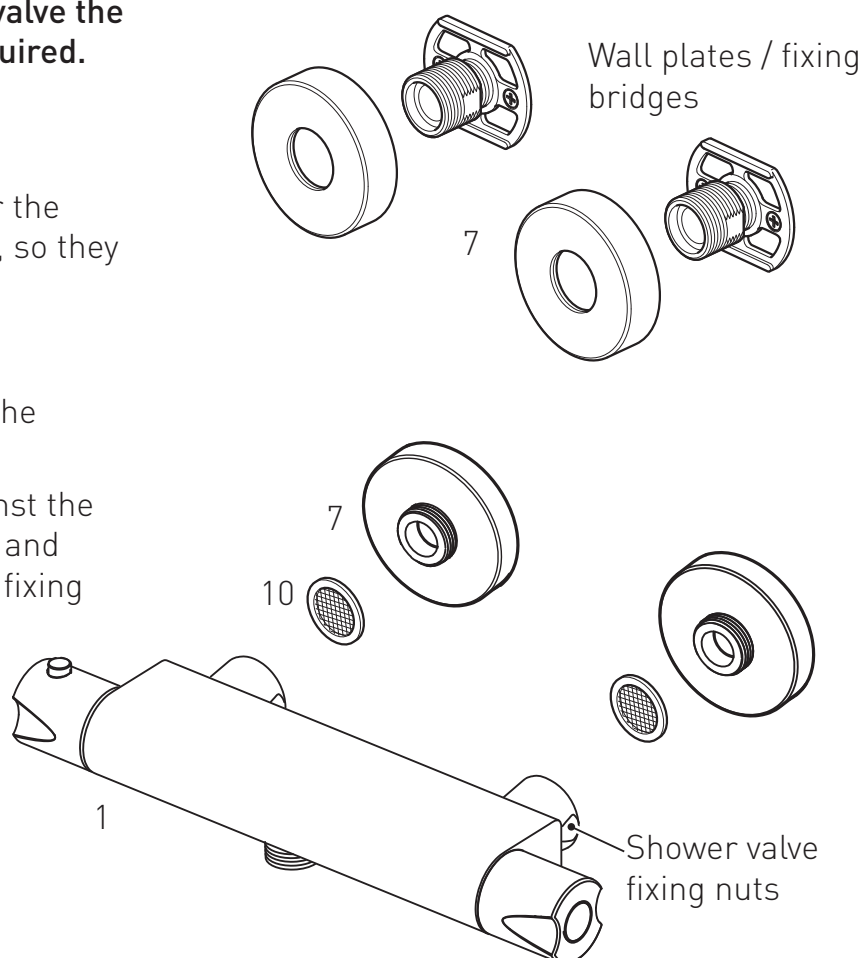
Screw the Retro-fit covers (7) over the existing wall plates/fixing bridges, so they are flush against the wall.

2. Attach shower valve

Place the filter washers (10) into the shower valve fixing nuts.

Position the shower valve (1) against the existing wall plates/fixing bridges and carefully tighten the shower valve fixing nuts. **Do not overtighten.**

Note: Take care not to damage the finish of the shower valve fixing nuts. Protect the chromium plated surfaces with a cloth.



If you have enjoyed this method of retro fit installation, the retro fit wall fixings are available to purchase seperately, please see www.bristan.com for more details. Bristan product code: WMNT10 C

Installation - Riser Rail

1. Mark the position

Position the assembled riser rail on the wall, bearing in mind the different heights of people likely to use the shower and the length of the hose when connected to the shower.

With the riser rail vertical, mark the wall bracket positions onto the wall.

Release the slider handle and remove the slider and wall brackets from the rail.

2. Attach wall brackets

Position the bottom wall bracket onto the marked position on the wall surface, ensure it is vertical and mark the centres of the fixing holes onto the wall. Existing fixing holes maybe used as the bottom wall bracket is fully adjustable.

Warning: Please check for any hidden pipes and cables before drilling holes in the wall.

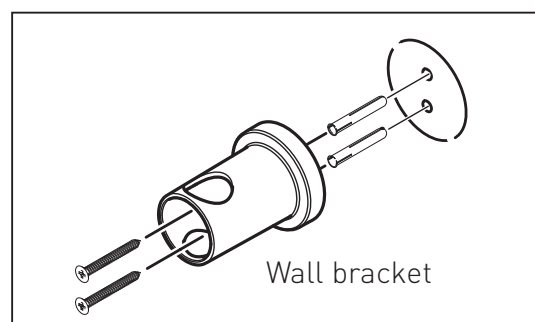
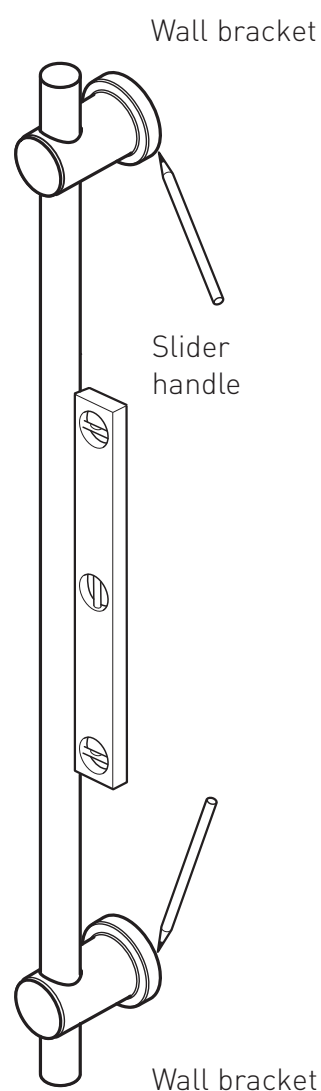
Drill suitable holes and insert the wall plugs. Securely attach the bottom wall bracket to the wall using the screws provided.

Tips: A piece of insulation or masking tape positioned where holes are to be drilled and before marking out the exact position for the fixing holes will help stop the drill bit from wandering, particularly on a tiled surface.

When working near a basin, bath or shower insert plug or cover waste to prevent losing small parts.

Take care not to drop tools/equipment into basin, bath or shower during shower installation.

Note: If replacing an existing riser rail, check to see if the existing holes can be reused or covered by the new wall brackets. Try to avoid drilling close to the edge of tiles, drill in the middle of the tiles or in the tile joints.



Installation - Riser Rail cont.

3. Insert riser rail

Insert the plastic bracket insert as shown into the wall bracket and slide the riser rail down through the bottom wall bracket ensuring the two holes in the riser are on the top

4. Fit hose retainer & slider

Push the hose retainer (first) and slider down onto the riser rail, ensuring they are the correct way up - as shown.

5. Attach top wall bracket

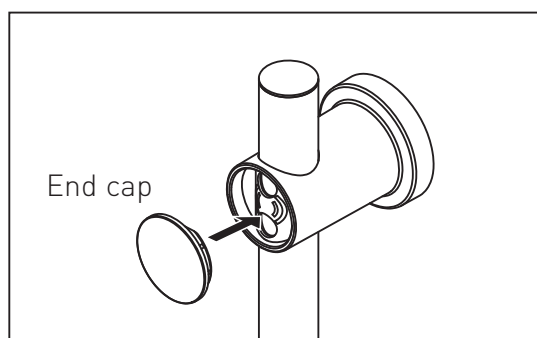
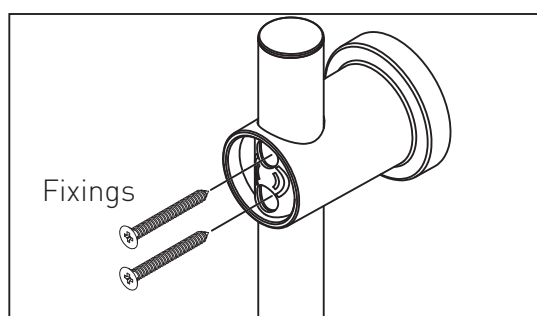
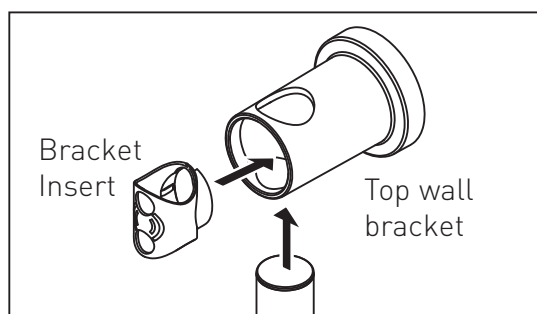
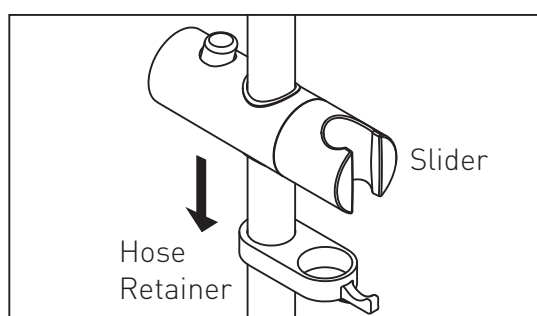
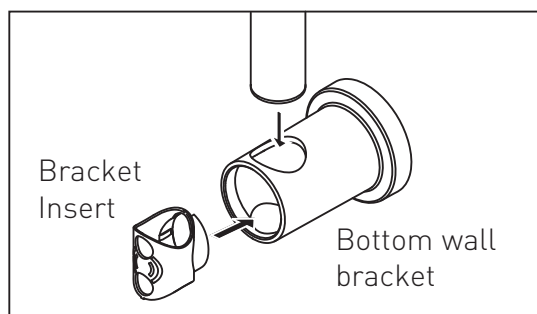
Push the top wall bracket onto the riser rail, ensuring the rail is vertical mark the centres of the fixing holes in the top wall bracket onto the wall surface.

Remove the top wall bracket and drill suitable holes and insert the wall plugs supplied.

Insert the plastic bracket insert into the top wall bracket and refit the wall bracket onto the riser rail. Align the fixing centres up with the holes and secure in place using the screws provided.

6. Fit end caps

Push-fit the wall bracket end caps onto position to cover the fixings.



Installation - Riser Rail cont.

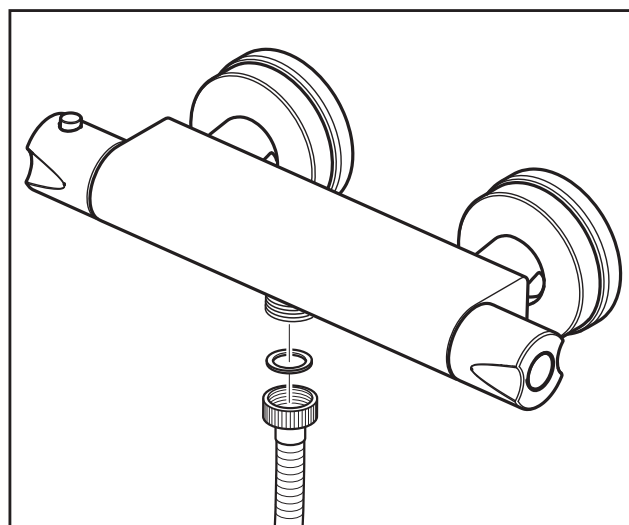
7. Connect shower hose to shower valve

Screw the shower hose (ribbed nut end) onto the mixer ensuring that the rubber washer is fitted.

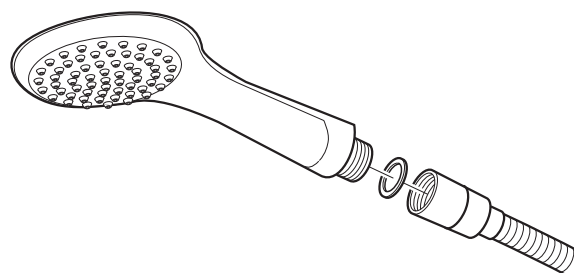
8. Connect shower hose to showerhead

Screw the shower hose (conical end) onto the showerhead ensuring that the rubber washer is fitted.

Place the showerhead into the slider.



Single function showerhead shown as an example



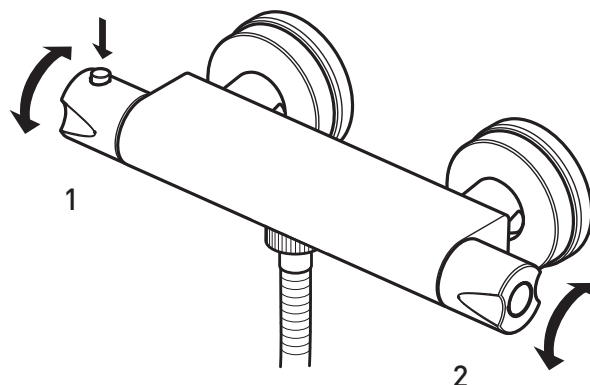
Operating the Shower

1. Temperature Control

Turn the control clockwise to increase the temperature.

Press the button in and continue to turn the control to override the maximum temperature.

Turn the control anti-clockwise to decrease the temperature.



2. Flow Control

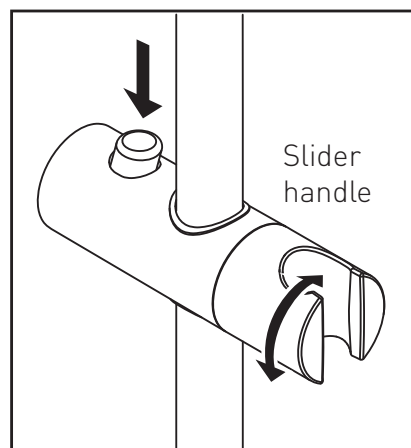
Turn the control clockwise to turn on and increase the flow.

Turn anti-clockwise to reduce the flow and turn off.

Riser Rail

Pressing in the button on the slider will allow the user to raise or lower the height of the showerhead.

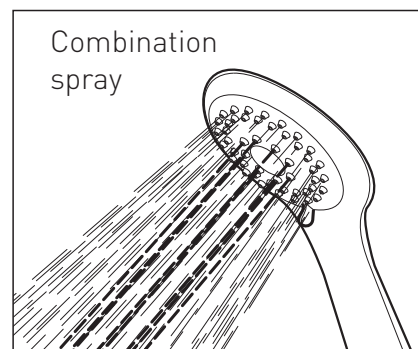
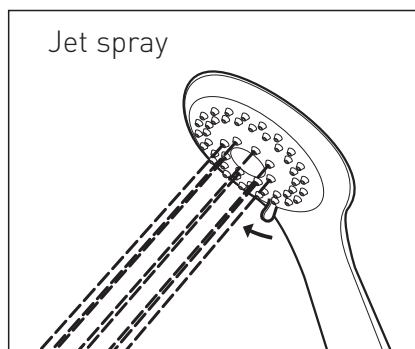
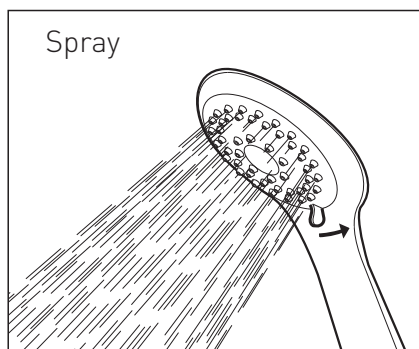
Turning the slider handle will allow the angle of the showerhead to be adjusted.



Adjusting the Showerhead

(AR2 SHXMTFF2 C)

Simply rotate the spray head one way or another to the desired spray pattern.



Commissioning

Commissioning notes for Thermostatic Mixing Valves

The first step in commissioning a thermostatic mixing valve is to check the following:

1. The designation of the thermostatic mixing valve matches the application.
2. The supply pressures are within the valves operating range.
3. The supply temperatures are within the valves operating range.
4. Isolating valves (and strainers preferred) are provided.

If all these conditions are met, proceed to set the temperature as stipulated in the Maintenance section.

The mixed water temperature at the terminal fitting must never exceed 46°C.

It is a requirement that all TMV2 approved valves shall be verified against the original set temperature results once a year. When commissioning / testing is due the following performance checks shall be carried out:

- Measure the mixed water temperature at the outlet.
- Carry out the cold water supply isolation test by isolating the cold water supply to the TMV, wait for five seconds, if water is still flowing check that the temperature is below 46°C.

If there is no significant change to the set outlet temperature ($\pm 2^{\circ}\text{C}$ or less change from the original settings) and the fail-safe shut off is functioning, then the valve is working correctly and no further service work is required.

Notes: If there is a residual flow during the commissioning or the annual verification (cold water supply isolation test), then this is acceptable providing the temperature of the water seeping from the valve is no more than 2°C above the designated maximum mixed water outlet temperature setting of the valve.

Temperature readings should be taken at the normal flow rate after allowing for the system to stabilise.

The sensing part of the thermometer probe must be fully submerged in the water that is to be tested.

Any TMV that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the instructions in the Maintenance section.

The installation of thermostatic mixing valves must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999.

Maintenance

General Cleaning

Your fitting has a high quality finish and should be treated with care to preserve the visible surfaces. All surfaces will wear if not cleaned correctly, the only safe way to clean your mixer is to wipe with a soft damp cloth. Stains can be removed using washing up liquid. All bath cleaning powders and liquids will damage the surface of your fitting, even the non-scratch cleaners.

Note: Never use abrasive detergents or disinfectants or those containing alcohol, hydrochloric acid or phosphoric acid.



Bristan recommend E-cloth for cleaning all of our bathroom & kitchen products. Using just water, E-cloth gives a smear free, deep clean by breaking up and holding dirt, which normal cloths leave behind. Order through your Bristan stockist (order code: ECLOTH).

Cleaning the Showerhead

Your Bristan showerhead has rub-clean nozzles for easy cleaning. Simply rub your fingers across the rubber spray jets regularly and before you turn the shower on to remove any scale or debris.

The hardness of the water in your area will determine how often you should clean your showerhead. Build up of scale in particularly hard water areas combined with constant use means you may need to clean your showerhead once a week. To ensure continued performance of your shower the showerhead needs to be regularly descaled.

Cartridge Maintenance

We advise that the shower valve is regularly serviced in hard water areas to maintain the flow of water (see Map of Hard Water Regions in the UK on page 26).

Isolate both hot and cold water supplies to the shower valve by either:

- Turning the water supply off at the mains stopcock
- Turning off the isolation valves to the shower valve

1. Remove the temperature control, undo the screw, remove the handle and plastic stop.

Important: Take note of the positions of the plastic stop and handle - they must be refitted in the same positions.

2. Unscrew the cartridge anti-clockwise and remove from the valve body.

3. Place the cartridge in a bowl and carefully add hot water (just off the boil) and vinegar to de-scale the cartridge. Leave in the solution until the water has cooled and rinse with clean water.

4. Grease the seals with a silicon grease supplied by Bristan (part number: SP-495-0002) and carefully refit.

5. Reset the maximum temperature and refit the handle and cover.

Adjusting the Temperature

Adjusting the Temperature

The shower valve has been factory set with equal (balanced) hot and cold water supply pressures with the hot water supply at 65°C.

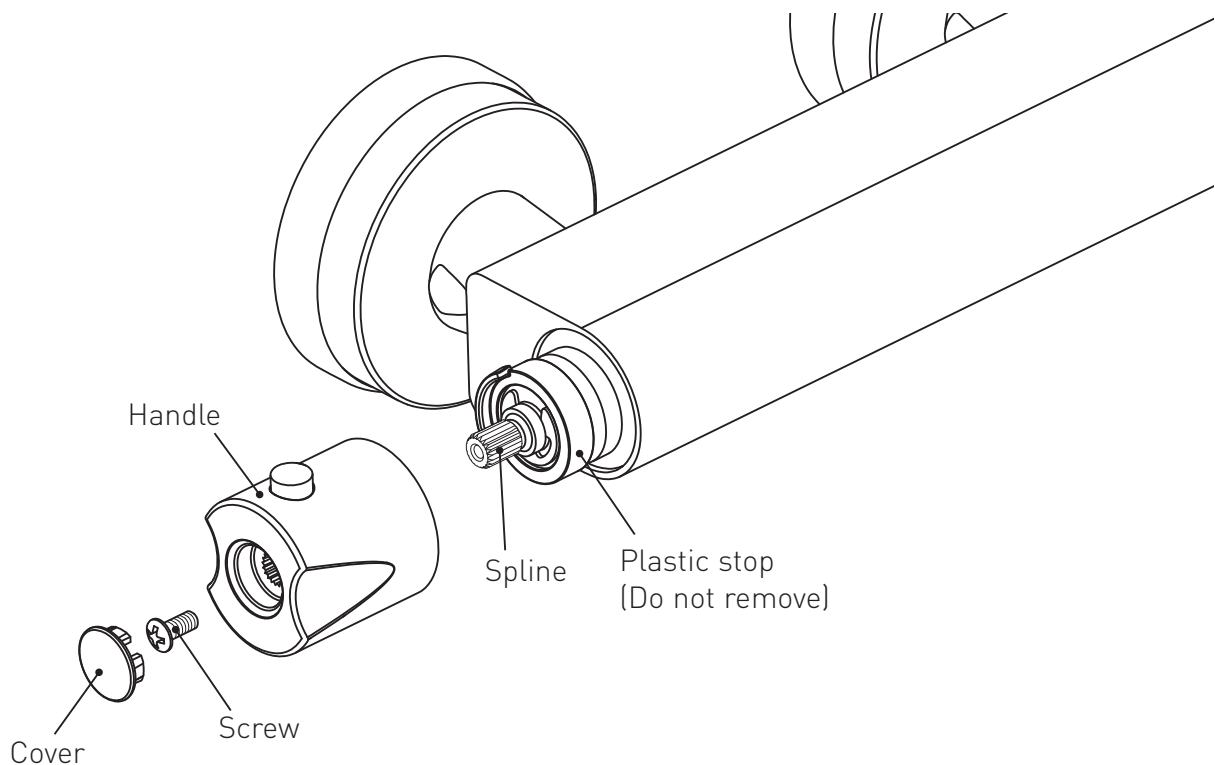
If your operating conditions are different from those above, the outlet water temperature may differ from the factory setting.

If required the shower valve can be re-calibrated to suit your own temperature requirements.

Turn the temperature control until it reaches the stop and check the temperature of the water with a thermometer. If the temperature is not

correct, re-calibrate the shower valve:

1. Remove the temperature control cover, undo the screw and carefully remove the handle but **do not** remove the plastic stop.
2. Turn the spline clockwise to decrease the temperature and anti-clockwise to increase the temperature. Check the temperature and adjust until you achieve the required temperature.
3. Replace the handle ensuring the 'stop pin' inside the handle is up against the plastic stop.
4. To finish, reinsert the screw and push on the cover (will only fit on in one position).



Troubleshooting

Symptom	Cause	Remedy
No flow or low flow rate and / or varying temperatures.	Check showerhead, hose and filters for any blockage.	Clean as necessary, refer to Maintenance section (page 26).
	Partially closed stop or service valve in water supply pipework to the shower valve.	Open stop or service valve.
	Instantaneous water heater cycles on and off as the flow rate or pressure is too low.	Increase water flow rate or pressure through system. Contact the boiler manufacturer.
	Head of water is below the minimum distance required.	Raise the cistern or fit a shower booster pump.
	Inlet filter is partially blocked.	Clean or replace, flush through pipework before refitting.
	Hot or cold water being drawn off elsewhere causing pressure changes or instantaneous boiler temperature changes.	Do not use other water outlets when using the shower.
	Make sure the maintained inlet pressures are nominally balanced and sufficient.	Refer to Installation Requirements section (pages 12-16).
	Airlock or partial blockage of the pipework.	Flush through pipework to ensure removal of debris and any airlocks.
	No hot or cold water reaching the shower valve.	Check hot and cold feeds (the valve will shut down if either the hot or cold supply fails).
Water leaking from showerhead.	This is normal for a short time after turning off.	Adjust angle of showerhead in holder as necessary to vary draining time.
	Shower control valve failing to close fully, possibly due to water borne debris.	Remove shower control valve assembly and check. Refer to Maintenance section (page 26) before dismantling shower valve.
	Flow control valve seals damaged.	Check condition of flow control valve and replace as necessary.

Troubleshooting - cont.

Symptom	Cause	Remedy
Maximum water temperature too hot or cold.	Maximum water temperature set incorrectly.	Reset maximum water temperature. Refer to 'Maximum Temperature Setting' in Commissioning section (page 25) and 'Adjusting the Temperature' (page 27).
Outlet water temperature too hot / cold.	Inlet filter is partially blocked.	Check insert filters for any blockages and clean as necessary.
	Installation conditions outside operating parameters.	Refer to Installation Requirements section (pages 12-16). Service shower valve as recommended. Refer to Maintenance section (page 26).
Water temperature too cold - maximum water temperature incorrectly set.	Hot water temperature is less than 10°C above the required blend temperature.	Adjust hot water temperature or wait for water to reheat if stored system is used.
	Instantaneous water heater not igniting because water flow rate is too low.	Increase water flow rate through the system. Check cartridge inlet filters and clean or replace. Refer to Maintenance section (page 26). Contact the boiler manufacturer.
	Instantaneous water heater not igniting because water pressure is too low.	Increase water pressure through system. Contact the boiler manufacturer.
Only hot or cold water from shower valve outlet.	Inlet water supplies are reversed (hot to cold supply).	Check the connections are the correct way round. Hot on the left and cold on the right when viewed from the front. Rework pipework as necessary.
	Inlet filter is partially blocked.	Clean or replace, flush through pipework before refitting.

Notes

Please use this page to add any notes you or your installer may have regarding the plumbing system / installation of this product.

Guarantee

At Bristan, we want to make things as easy as possible for our customers. That's why we design products that are easy to fit and use, and that are quality tested to make sure they won't let you down. It's also why we offer solid guarantees on all products, effective from the date of purchase, to give you peace of mind.

Bristan's shower valves are covered by a **5 year guarantee**. This also includes **5 years labour cover** * (subject to registration) which means that, in the unlikely event that there is a problem in the first year after purchase, we'll send one of our expert engineers to fix it.

*Labour is provided by an approved Bristan Care engineer or appointed representative. The guarantee only applies to products with a manufacturing fault. There will be a call out charge for any incidents where no fault has been found with the product, or if the issue is due to poor installation or maintenance.

Guarantee Terms and Conditions

This guarantee is in addition to your statutory and other legal rights and is subject to the following conditions:

- The product was purchased within the United Kingdom or Republic of Ireland.
- The guarantee applies solely to the original purchaser with proof of purchase.
- The installation must allow ready access to all products for the purpose of inspection, maintenance or replacement.

- Repair under this guarantee does not extend the original expiry date. The guarantee on any replacement parts or product ends at the original expiry date.

- Any part found to be defective during the guarantee period will be replaced without charge, providing that the product has been installed in accordance with the instructions given in this guide and used as the manufacturer intended.

The guarantee does not cover:

- Damage or defects caused by;
 - General wear and tear (including special non-chrome finishes; components such as filters, seals, 'O' rings and washers)
 - Incorrect installation
 - Repair using non-Bristan parts
 - Accidental or wilful misuse
 - Corrosion and the use of inappropriate cleaning products
 - System debris including the build up of limescale (which can be controlled through regular servicing and maintenance)
- Compensation for loss of use of the product or consequential loss of any kind.

In the interests of continuous product improvement, Bristan reserves the right to alter product specifications without notice.

The Bristan Product Guarantee does not affect your statutory rights as a consumer.

Guarantee cont.

• Need help?

If this product does not function correctly when first used, contact **Bristan Care Customer Service on 0844 701 6273** where our expert team of advisors will be able to offer you help and advice.

• Problems during the guarantee period

In the unlikely event that you encounter any problems with the product during the guarantee period, contact **Bristan Care Customer Service on 0844 701 6273** with your proof of purchase and we will work to resolve the problem quickly.

Bristan Care Customer Support

Bristan customers also benefit from the support of Bristan Care, our comprehensive customer support package which offers:

Technical support hotline

(Tel: 0844 701 6273) with access to fully trained advisers who can offer installation advice, talk you through quick maintenance checks, or recommend the best course of action to fix any problems with a product.

Expert advice

Find easy to follow 'how to' video guides and technical FAQs online at www.bristan.com. Our guides take you step-by-step through many product installations and you can find plenty of easy guides to quick product fixes and servicing.

Spare parts

We hold thousands of spares and we keep them for discontinued products for over seven years. Spares can easily be ordered online at www.bristan.com and are dispatched the same day.

Expert plumbing engineers

If we can't solve the problem over the 'phone or with a spare part, then we'll send out one of our Bristan Care engineers to take a look. Bristan Care engineers provide free support for products that are within guarantee, but are also available to service products that are out of guarantee for a small charge. For details, please call **Bristan Care Customer Service on 0844 701 6273**.

Part Number: FI AR2 SHX2
Issue: D1

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